



Telehealth in the Commonwealth

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Definitions

“Telemedicine” is the use of medical information exchanged from one site to another via electronic communications to support

- Medical diagnosis*
- Ongoing patient care*
- Remote patient monitoring*

“Telehealth” encompasses a broader definition of remote healthcare that does not always involve clinical services

- Health-related distance learning*

Telemedicine: History

- *Alexander Graham Bell*
- *Massachusetts General*
- *U of Nebraska*
- *NASA*
- *Dept of Defense*
- *SW Virginia Mental Health*
- *University of Virginia, VCU*
- *Virginia Telehealth Network*
- *Programs in all 50 states*



Federal investment in telehealth

■ **Department of Health and Human Services**

- *National Institutes of Health*
- *Health Resources Services Administration*
- *Agency for Health Research Quality*
- *Centers for Medicare and Medicaid Services*
- *Centers for Disease Control and Prevention*
- *Substance Abuse and Mental Health Services Administration*
- *Food and Drug Administration*
- *Indian Health Service*

■ **Department of Homeland Security**

■ **Department of Housing and Urban Development**

■ **Department of Defense**

- *Army Telemedicine Activities*
- *Navy Telemedicine Activities*
- *Air Force Telemedicine Activities*
- *DARPA*
- *Armed Forces Institute of Pathology*
- *Uniformed Services University of the Health Services*

■ **Department of Veterans Affairs**

■ **Department of Commerce**

■ **Department of Agriculture**

■ **Department of Labor**

■ **Department of State**

INDEPENDENT AGENCIES AND COMMISSIONS

- *NASA*
- *National Science Foundation*
- *Federal Communications Commission*
- *Social Security Administration*
- *Office of Personnel Management*
- *Consumer Products Safety Commission*
- *Appalachian Regional Commission*
- *US Agency for International Development*

State commitments to telehealth

- *Medicaid*
- *State Rural Health Plan*
- *State Stroke Systems of Care Task Force*
- *Diabetes Council*
- *Center for Innovative Technologies*
 - *BroadAxe Survey results pending*
- *Office of Minority Health and Policy of VDH*
- *Joint Commission on Health Care*
 - *Workforce analysis*
- *Tobacco Indemnification Commission*
- *Medical Society of Virginia*
- *Virginia General Assembly*

Virginia Telehealth Network

- *Mission: to advance adoption, implementation and integration of telehealth and related technologies statewide*
- *501c3 status achieved in 2010*
- *Convener of telehealth entities in the Commonwealth*
- *Foster and advance sound policies related to telehealth*
- *June Collmer, RN, NP, JD, Interim Exec Director*

Facilitate the Health System's missions of

- *Clinical Care*
- *Teaching*
- *Research and innovation*
- *Public Service*

Services

- *Videoconferencing for clinical care*



- *Care across the continuum*
- *Store and forward applications*
- *Distance learning*
- *International outreach*

UVA Specialty/Subspecialty Participants

*Cardiology
Dermatology
Diabetes
Emergency Medicine
Endocrine
ENT
Gastroenterology
Genetics
Geriatrics
Gynecology and Obstetrics
Hematology
Infectious Disease
Nephrology
Neurology
Neurosurgery
Ophthalmology
Orthopedics
Obesity*

*Oncology/Tumor boards
Pain management
Palliative care
Pediatric cardiology
Pediatric nephrology
Pediatric oncology
Plastic surgery
Psychiatry
Pulmonary medicine
Radiology
Rheumatology
Surgery
TCV
Toxicology/Poison control
Urology
Wound care*

Partnerships

- *Academic-community hospital linkages*
- *Academic-academic hospital linkages*
- *Rural clinics (FQHCs, Veteran's clinics)*
- *Virginia Department of Health sites*
- *Virginia Department of Corrections*
- *School health*
- *Nursing homes*
- *Home telehealth – remote monitoring*
- *International collaborations*



Benefits of telehealth

- *Patients:*
 - *Timely access to locally unavailable services*
 - *Spared burden and cost of transportation*
 - *Improvement in quality of care*
- *Health professionals (workforce shortages)*
 - *Access to consultative services*
 - *Access to health professional education*
- *Rural communities*
 - *Enhanced healthcare/economic empowerment*

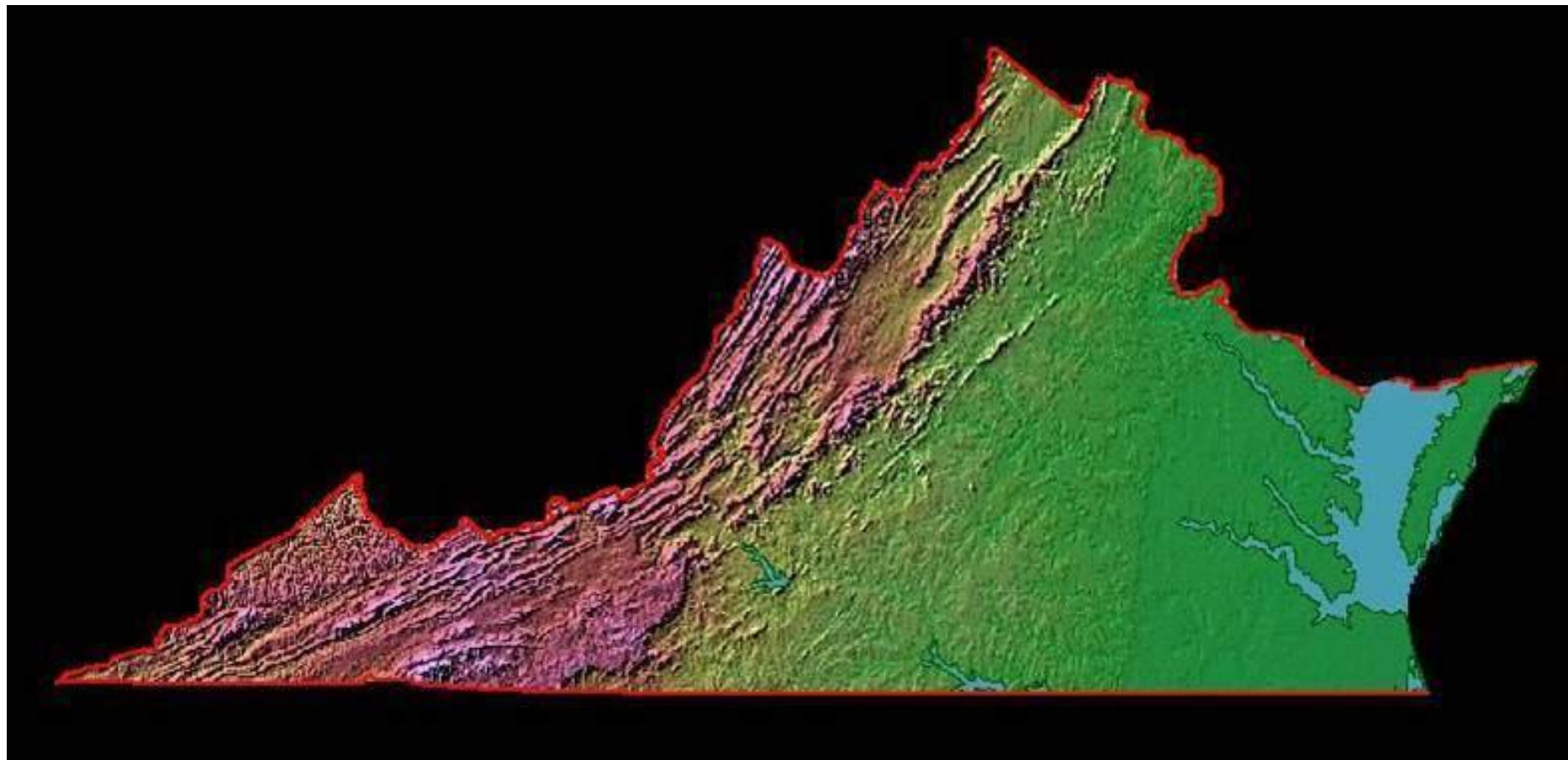
Enhancing access Remote Area Medical Clinic



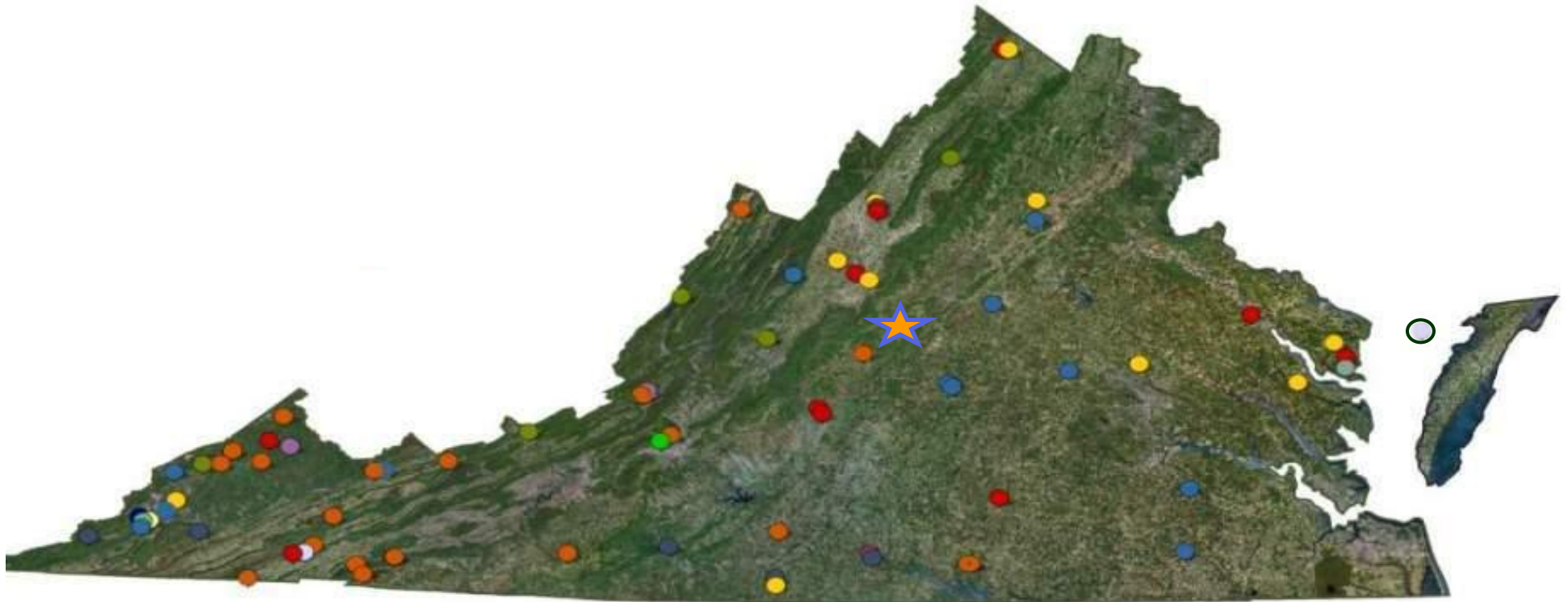
Technology



- *POTS – high bandwidth fiber-optic communications*
- *Primarily IP based connectivity*
- *ISDN*
- *Satellite*
- *Wireless*
- *Supported by FCC Rural Healthcare Universal Service Fund*
 - *\$4.250,008 in recurring charges*
- *Broadband infrastructure investments*



UVA Telemedicine network (80 sites)



● Area Agency for the Aging
● Behavioral Health Ctr
● Community Health Center
● Community Service Board

● Correctional Facility
● Critical Access Hospital
● Educational Institution
● Family Practice

● FQHC
● Free Clinic
● Health Department
● Hospital

● Hospital-based Clinic
● PACE
● Veterans Affairs Hospital

- *20,568 patient encounters in Virginia*
 - *4,515 correctional*
 - *16,053 non correctional*
- *Services in 35 different specialties*
 - *Emergency*
 - *Single consults/follow up visits*
 - *Block scheduled clinics*
 - *Screenings with store forward technologies*
- *Facilities: 80 sites (hospitals, clinics, school, prisons, health departments)*
- *Distance learning*
- *Spared Virginians 5.6 million miles of travel*

VCU Program

- *16,098 patient encounters in Virginia*
 - *16,037 correctional*
 - *61 non-correctional*
- *Services in 14 different specialties*
- *NASA funded research*
- *Distance learning*
- *Facilities: 32 sites (prisons, clinic, hospitals)*

Other programs that incorporate elements of telemedicine

- *NNMP Telehealth Consortium*
- *HCA*
- *Centra*
- *Carilion*
- *Inova*
- *Valley Health*
- *Sentara*

Distance learning networks

- *Edward Via Virginia College of Osteopathic Medicine*
- *EVMS*
- *Sentara*
- *Department of Mental Health, Mental Retardation and Substance Abuse Services*
- *Office of Emergency Preparedness*

Clinical Applications



High risk obstetrics/infant mortality

- *Antenatal Neonatal Guidelines, Education and Learning System (ANGELS) 26% reduction in neonatal mortality*
- *UVA High Risk Obstetrics Telehealth Program - 5 sites*
 - *Need*
 - *Shortage of maternal-fetal medicine specialists in Virginia*
 - *High risk populations*
 - *High cost to Medicaid*
 - *Partnership with VDH and Harrisonburg FQHC*
 - *Productivity Investment Fund 2008*
 - *HRSA grant*
 - *After two years, only ONE infant hospitalized for prematurity*
 - *Text 4 Baby*

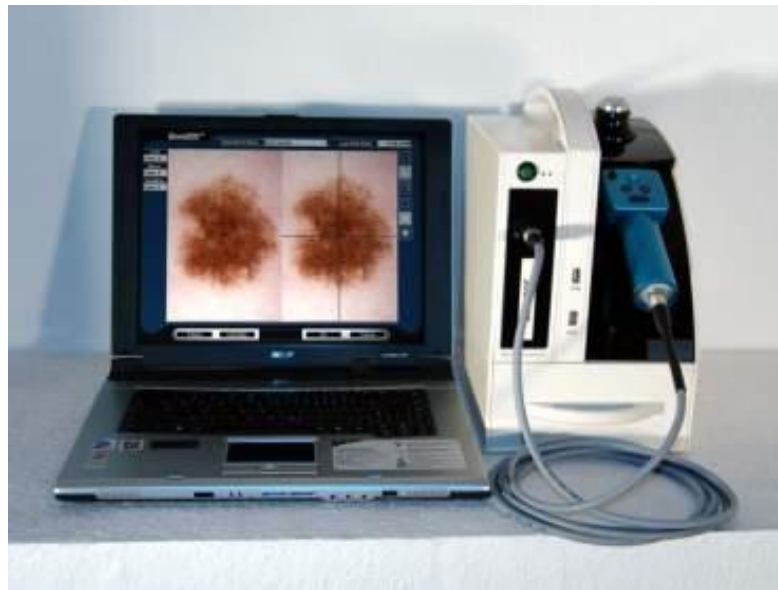
Tele-ophthalmology

- *Tele-ophthalmology technologies: store forward*
Screening for diabetic retinopathy (primary cause of blindness in working adults)
Proposal to DMAS for store forward pilot (Medicaid funds aged, blind and disabled, why not screening?)
- *ATA/AAO Tele-ophthalmology standards*



Tele-dermatology

- *Workforce shortages in dermatology*
- *> 6 month wait for an appointment in some communities*
- *Live interactive video consults or store and forward*
 - *Life saving consultations*
- *ATA – AAD teledermatology standards*



Acute stroke intervention

- *Challenge of lack of access to stroke neurologists in rural areas*
 - *High cost, high morbidity condition*
 - *Time is of the essence (3 hour window for thrombolytic agents)*
 - *Increase use of TPA in rural hospitals*
- *UVA, Bon Secours, Specialists on Call*
- *Wellmont, Inova, Riverside, HCA, Valley Health exploratory phase*
- *State Stroke Systems of Care Task Force*



- *VISICU_R model with continuous monitoring*
 - *Inova Healthcare System: 5 hospitals serving 127 ICU beds.*
 - *HCA system: 7 hospitals serving 86 ICU beds*
 - *Sentara: 5 hospitals serving 103 beds*
- *Consultation model*
 - *VCU: 1 hospital serving 10 beds*

- *Begun in the correctional environment (VCU and UVA)*
- *Expanded to rural health department with Ryan White Funding*
- *AIDS care best provided by AIDS specialists*
- *UVA Outcomes:*
 - Of patients naïve to therapy:*
 - *77% attained undetectable viral load (<50 copies/ml)*
 - *40% receiving community based care by non-HIV specialists*

Cancer outreach: Mobile digital mammography



Cancer outreach

- *Second opinions*
- *Increased access to care*
- *Tele-colposcopy for cervical cancer*
- *Collaborative tumor boards*
- *Remote access to clinical trials*



Tele-mental health

- *Shortage of mental health providers in rural areas*
- *ATA/APA tele-mental health practice guidelines*
- *Consultations, medication management*
 - *Improve access, shorter wait times*
 - *#1 request for consultations at UVA*
 - *Fewer no-show patients than in traditional clinics*
 - *High rates of patient satisfaction in all age groups*
 - *Huge cost savings in geriatric care facilities*

Pediatric emergency medicine

- *Geographic disparities in pediatric emergency services*
- *92% of children seen in adult emergency rooms*
- *2-3% of seriously injured children receive initial treatment at a pediatric trauma center*
- *Rural EDs have limited access to pediatric specialists*



Chronic Disease Management

Remote monitoring and Home telehealth

- *10% of seniors account for 66% of Medicare costs*
- *Bon Secours, Sentara, Landmark Group*
- *Veterans Care Coordination and Home Telehealth Program*
 - 19% reduction in readmission for the same diagnosis,*
 - 25% reduction in hospital days*



Chronic Disease Management

Remote monitoring and Home telehealth

Targets

- Heart failure
- Diabetes
- Hypertension
- COPD/Asthma
- Alzheimers disease
- TBI/stroke

Devices:

- Wired
- Wireless



Public policy agendas for telehealth

- *Funding of telemedicine*
- *Reimbursement models evolving*
 - *Medicare, Medicaid, Private pay, Contractual*
- *Licensure*
- *Credentialing and privileging**
- *Malpractice – new standard of care?*
- *Telecommunications venue/costs*
- *Integration with EMRS/HIE/NHIN*
- *Interagency alignment related to policies*
 - *Rural definition*
- *Outcomes, quality, cost savings – rigorous analyses*

Opportunities in Health Reform

- *Demonstration projects: Medicaid and private payers*
 - *Home telehealth models*
 - *Store and forward*
- *Expansion to urban Medicare beneficiaries*
 - *Collaboration with Medicare intermediary*
- *Innovation (CMMI)*
- *HIE*
- *Integration into mainstream medicine*
- *Collaboration amongst providers, policymakers*

Changes Affecting Your Policy

During the 2010 General Assembly session, the following bills were signed by the Governor and became effective July 1, 2010. The Telemedicine Services change becomes effective January 1, 2011.

- HB258 expands the state definition of a federally Eligible Individual to include an individual whose most recent coverage was through the Medicaid program. All other elements of the definition remain the same.
- HB 1375 was introduced to update the list of standard reference compendia relating to the coverage of prescription drugs. The standard reference compendia list now includes the American Hospital Formulary Service – Drug Information; the National Comprehensive Cancer Network's Drugs & Biologics Compendium; and the Elsevier Gold Standard's Clinical Pharmacology.
- SB675 requires coverage of telemedicine services by insurers and health maintenance organizations beginning January 1, 2011.

Telemedicine services are the use of interactive audio, video, or other electronic media used for the purpose of diagnosis, consultation, or treatment. The interest and use of telemedicine has spread rapidly over the past few years and is becoming integrated into health care delivery systems at an increasing rate. Telemedicine offers patients and providers benefits that include:

- Increased access to providers, especially in medically underserved/rural areas
- Improved quality and continuity of care
- Convenience
- Reduction of time loss from work and travel costs

The member is located with a provider at an "originating" site, while the "remote" provider renders services via an audio/video connection. Equipment utilized for telemedicine must be of sufficient audio quality and visual clarity as to be functionally equivalent to a face-to-face encounter for professional services. ~~Examples of a telemedicine service could be a telehealth consultation or a telehealth office visit.~~ When using a telemedicine services, the applicable deductible and coinsurance will be applied. Note: telemedicine services do not include an audio-only phone call, email or fax transmission, all of which will not be covered.

Telemedicine Services will be effective for all Individual members effective January 1, 2011.

Champions



State Senator William Wampler

Champions



Congressman Rick Boucher

Champions



Senator Mark Warner

Champions



Virginia Governor Bob McDonnell

Champions



Aneesh Chopra, Chief Technology Officer

Champions



Marilyn Tavenner, Deputy Principal Administrator, CMS

Thank you!

